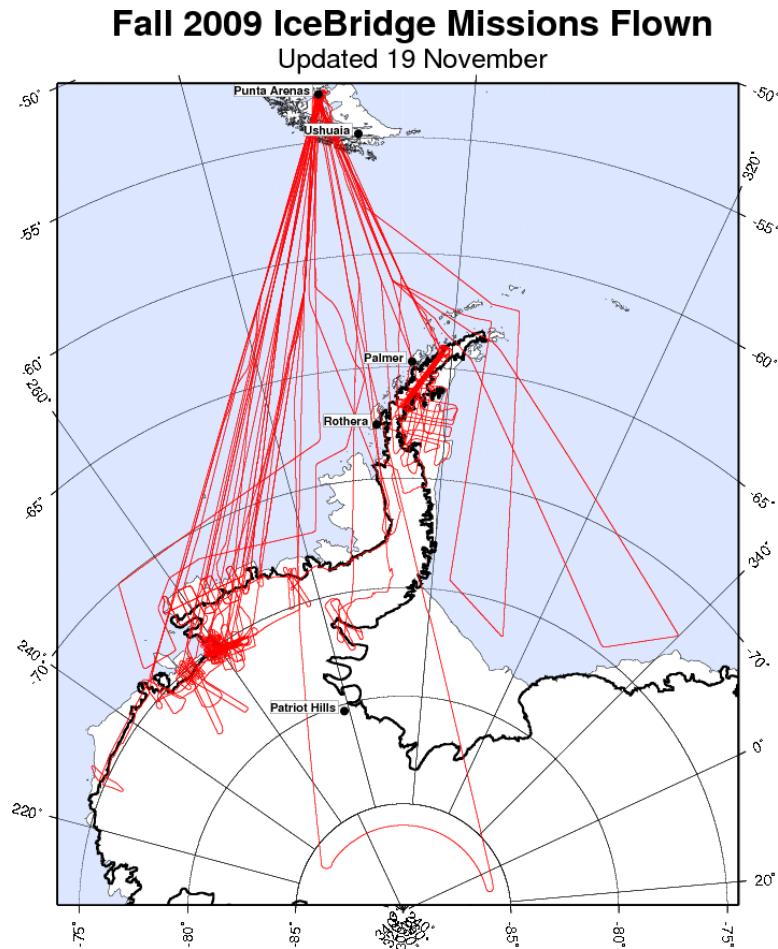


IceBridge 2009 Antarctica



- 21 science flights
- 227.4 science flight hours
- Flight breakdown:
 - 3 sea ice
 - 1 Bellingshausen
 - 2 Weddell
 - 3 high-alt land ice (HALI)
 - 1 PIG
 - 1 northern Peninsula
 - 1 interior
 - 15 low-alt land ice (LALI)
 - 10 Amundsen Sea
 - 5 Peninsula
- This year: 140 science hours, 12-13 science flights
 - 2 sea ice
 - 2 HALI

Rationale for Candidate Flights

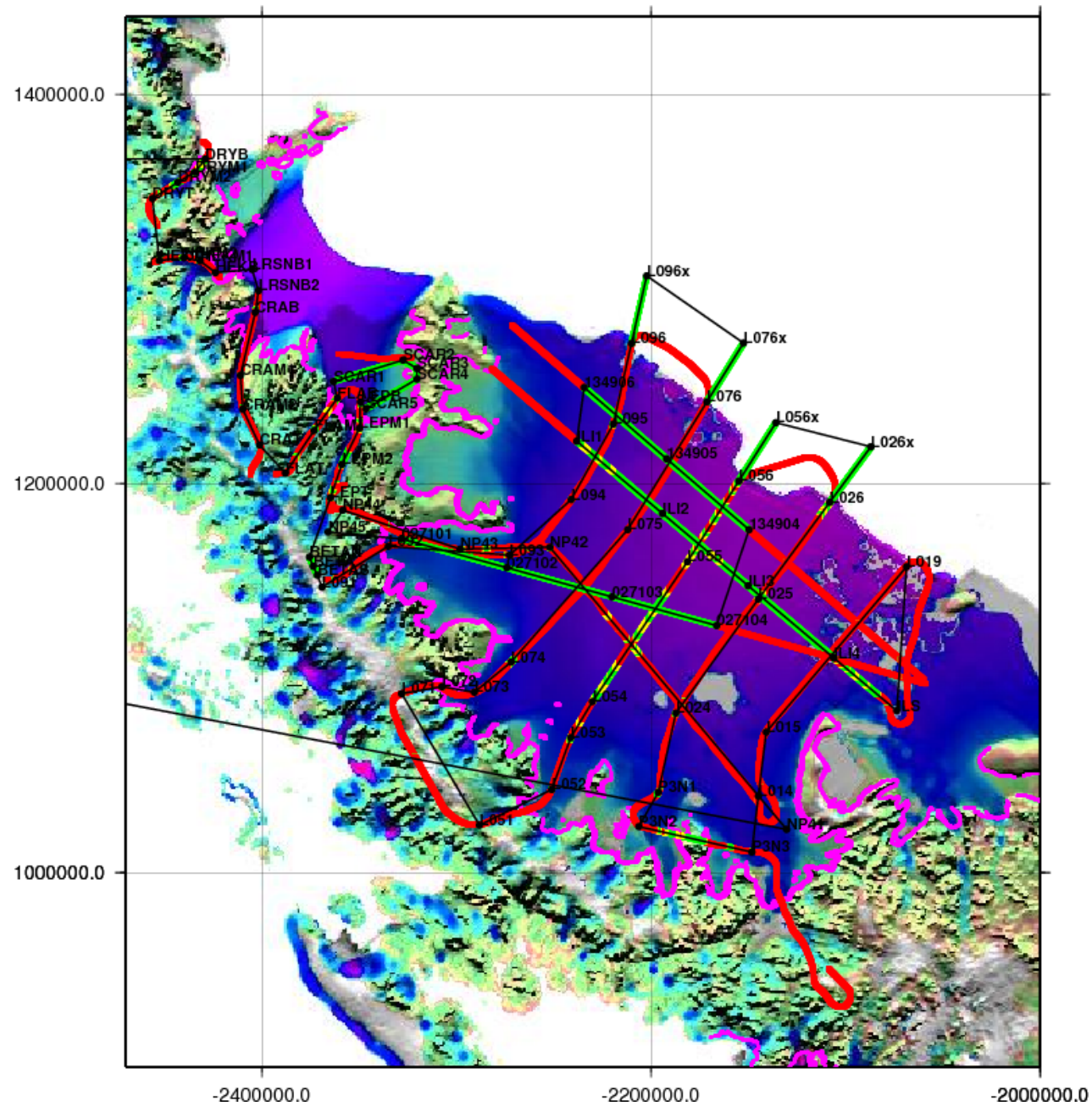
- IceBridge team (Martin, Studinger, Sonntag with some informal input from science community) selected the following 10 candidate land ice flights (LALI and HALI) as an initial draft
- Guiding rationale for the selections are:
 - *Continue monitoring ICESat ground tracks in regions of particular interest*
 - *Leverage even longer record of ATM/Kansas/Chilean measurements (2002-2008)*
 - *Extend gravity mapping of ice shelf bathymetry to new areas*
 - *Utilize large-area mapping capabilities of LVIS*
- For all of the above, take advantage of the long-range capability of NASA's DC-8 to measure key areas over a broad swath of west Antarctica
- Sea ice flights not yet considered

Candidate Missions

- Dh/dt flights
 - *PEN3: northern Peninsula glaciers and Larsen-C*
 - *PEN2: central Peninsula glaciers, George VI, ICESat*
 - *PEN1: coast-parallel line plus Eltanin Bay ICESat*
 - *TSK1: Thwaites-Smith-Kohler ATM/KU/CECS lines*
 - *TSK2: Thwaites ICESat*
- Gravity flights
 - *PEN6: George VI coarse survey*
 - *CROSSON1: 10 km Crosson ice shelf grid*
 - *DOTSON1: 10 km Dotson ice shelf grid*
 - *GETZ1: continuation of Getz ice shelf coarse survey*
- High-altitude flights
 - *LVISPIG: area-mapping of Pine Island Glacier*
 - *LVISPEN: area-mapping of northern Peninsula (Crane Glacier)*

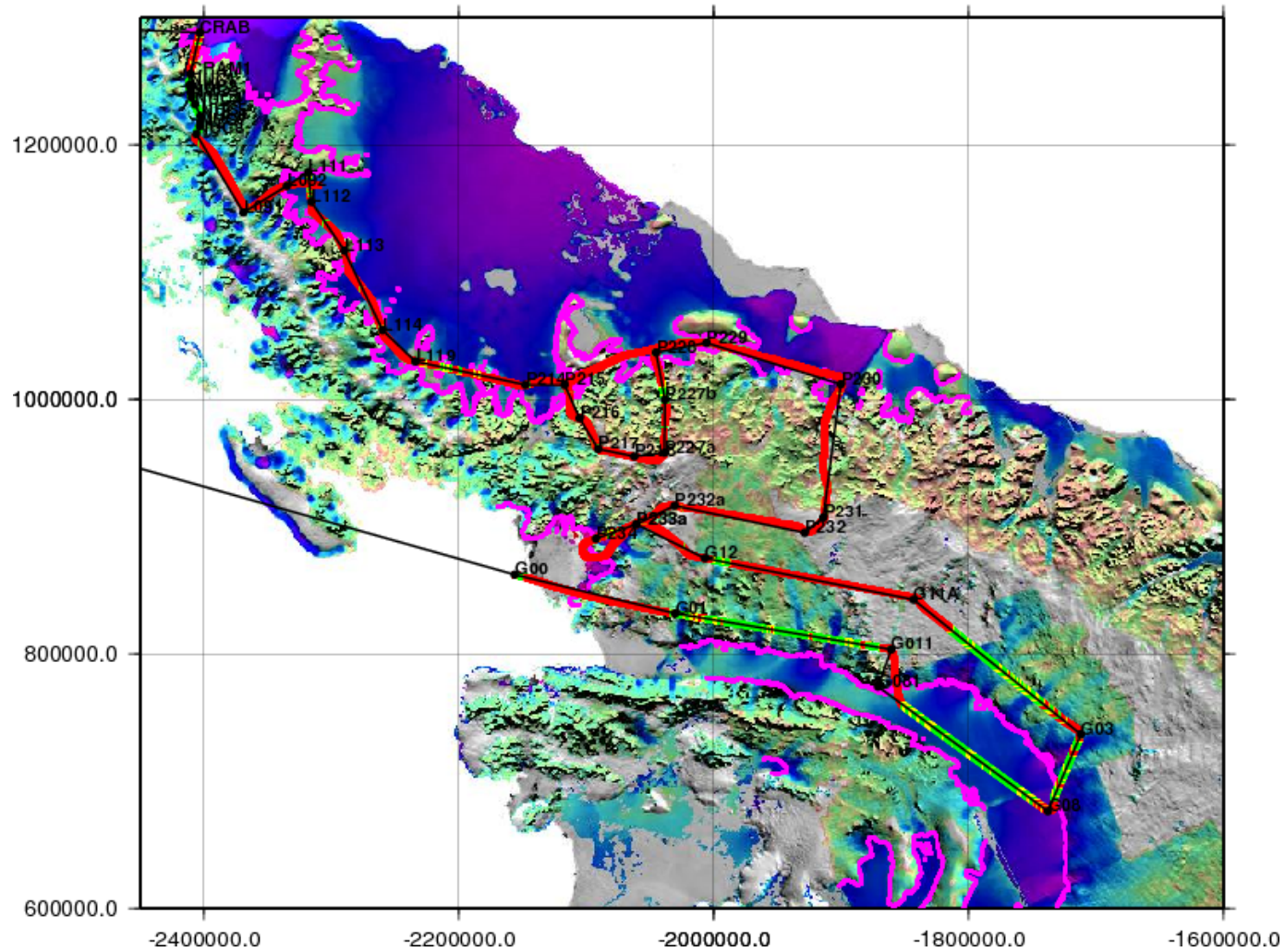
PEN 3

10.9 hours total / 6.5 hrs survey
440 knots transit / 250 knots survey



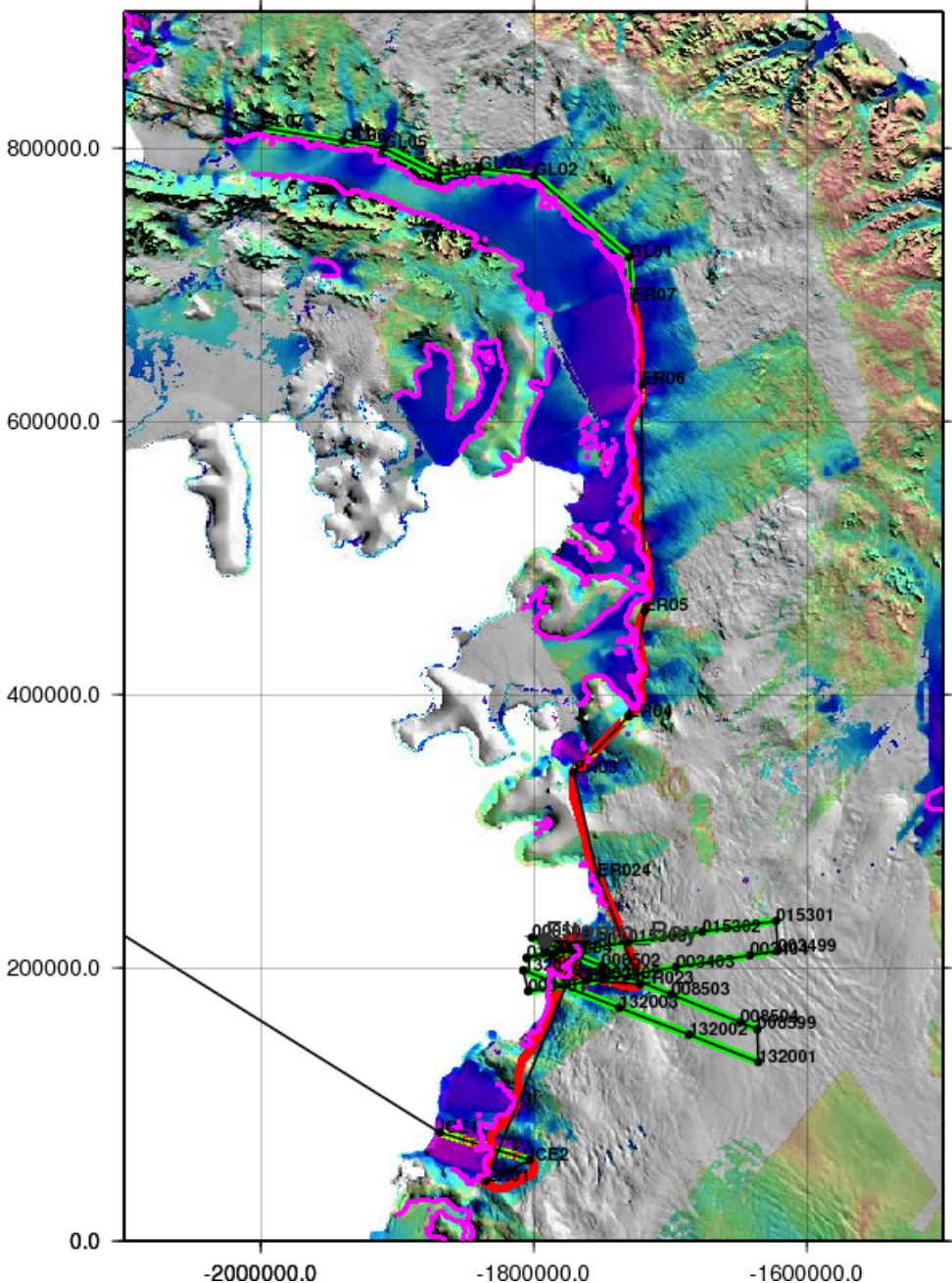
PEN 2

8.7 hours total / 4.7 hrs survey
440 knots transit / 250 knots survey



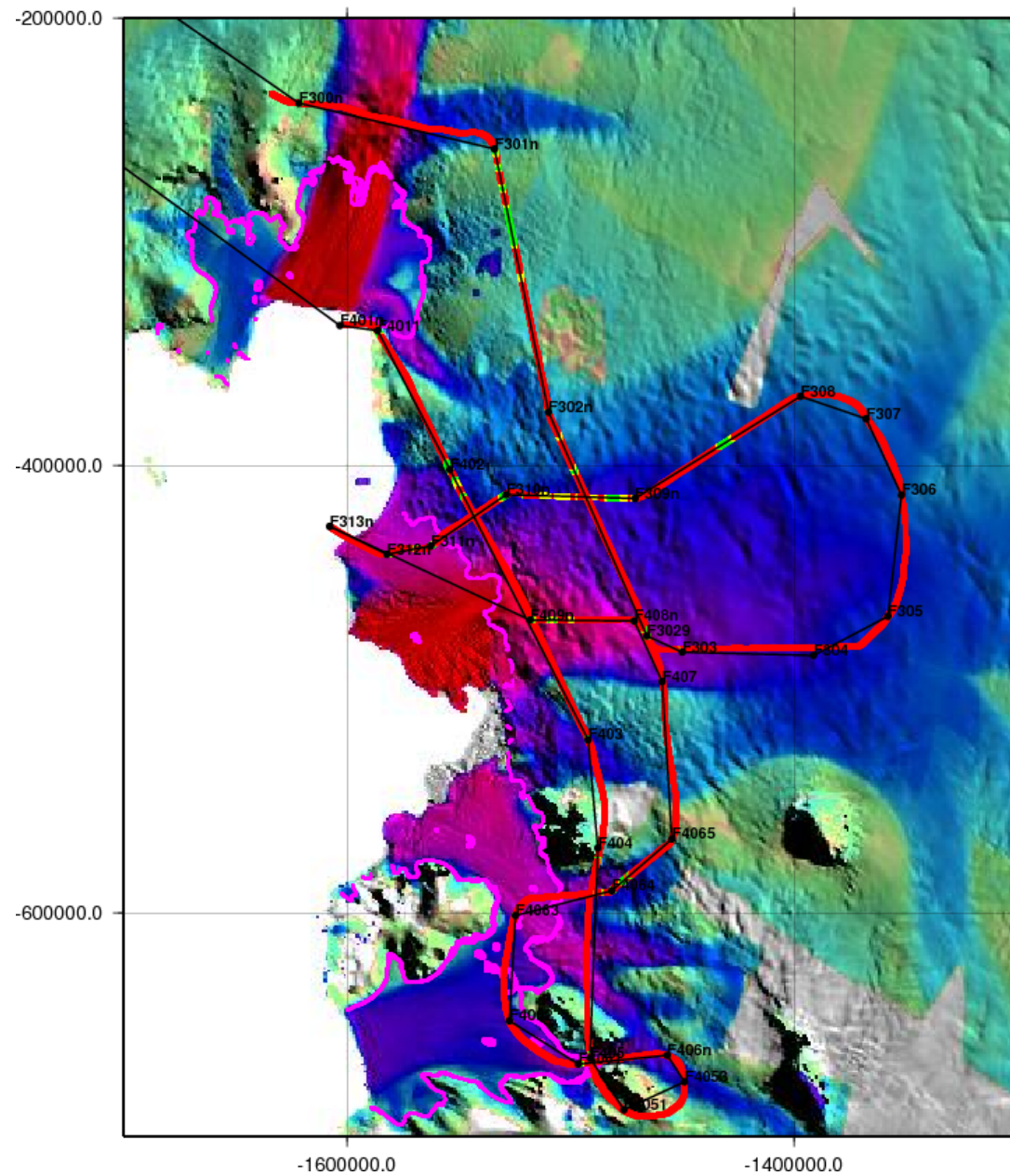
PEN 1

10.2 hours total / 3.8 hrs survey
440 knots transit / 250 knots survey



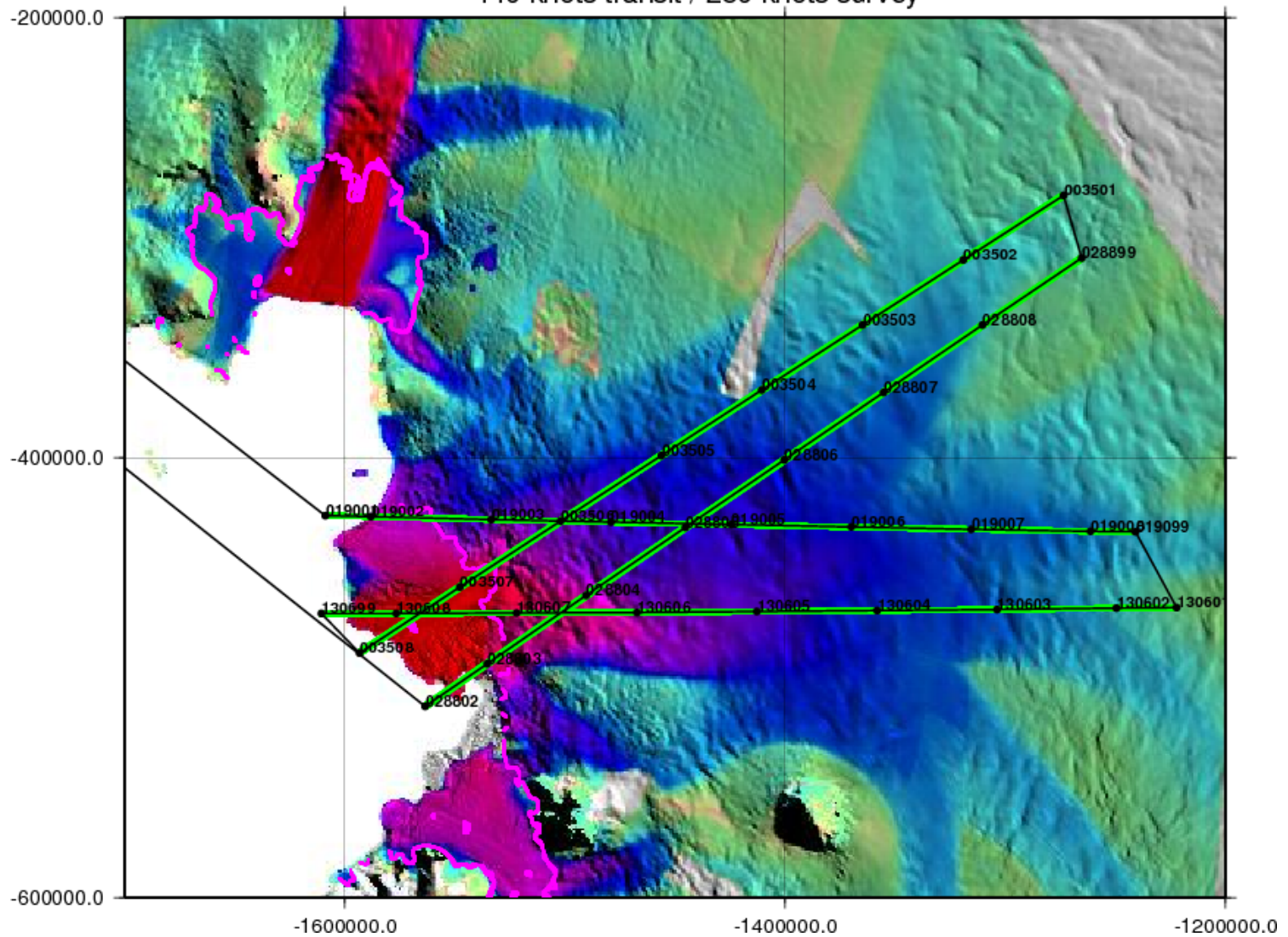
TSK 1

10.5 hrs total / 3.7 hrs survey
440 knots transit / 250 knots survey



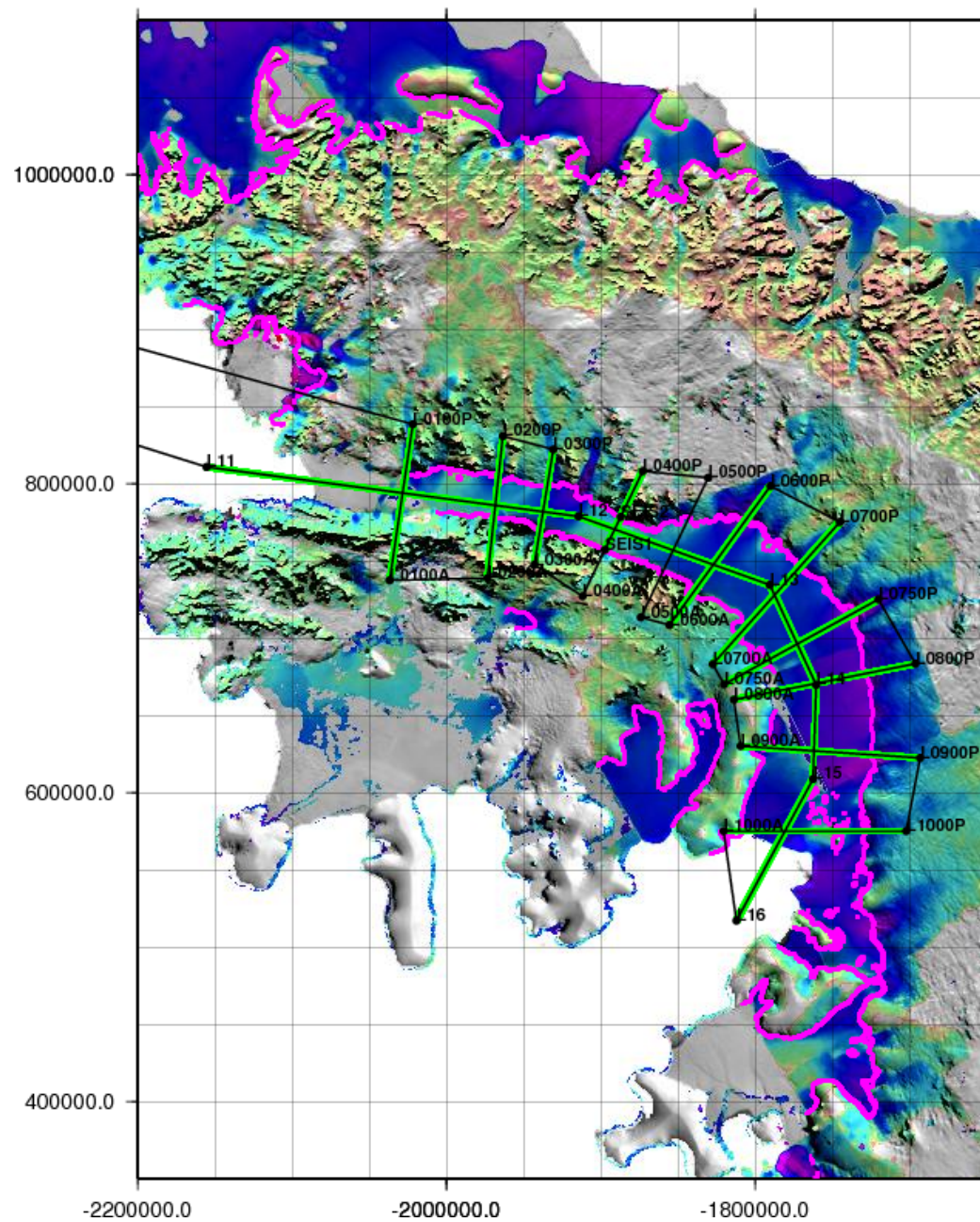
TSK 2

10.9 hrs total / 3.9 hrs survey
440 knots transit / 250 knots survey



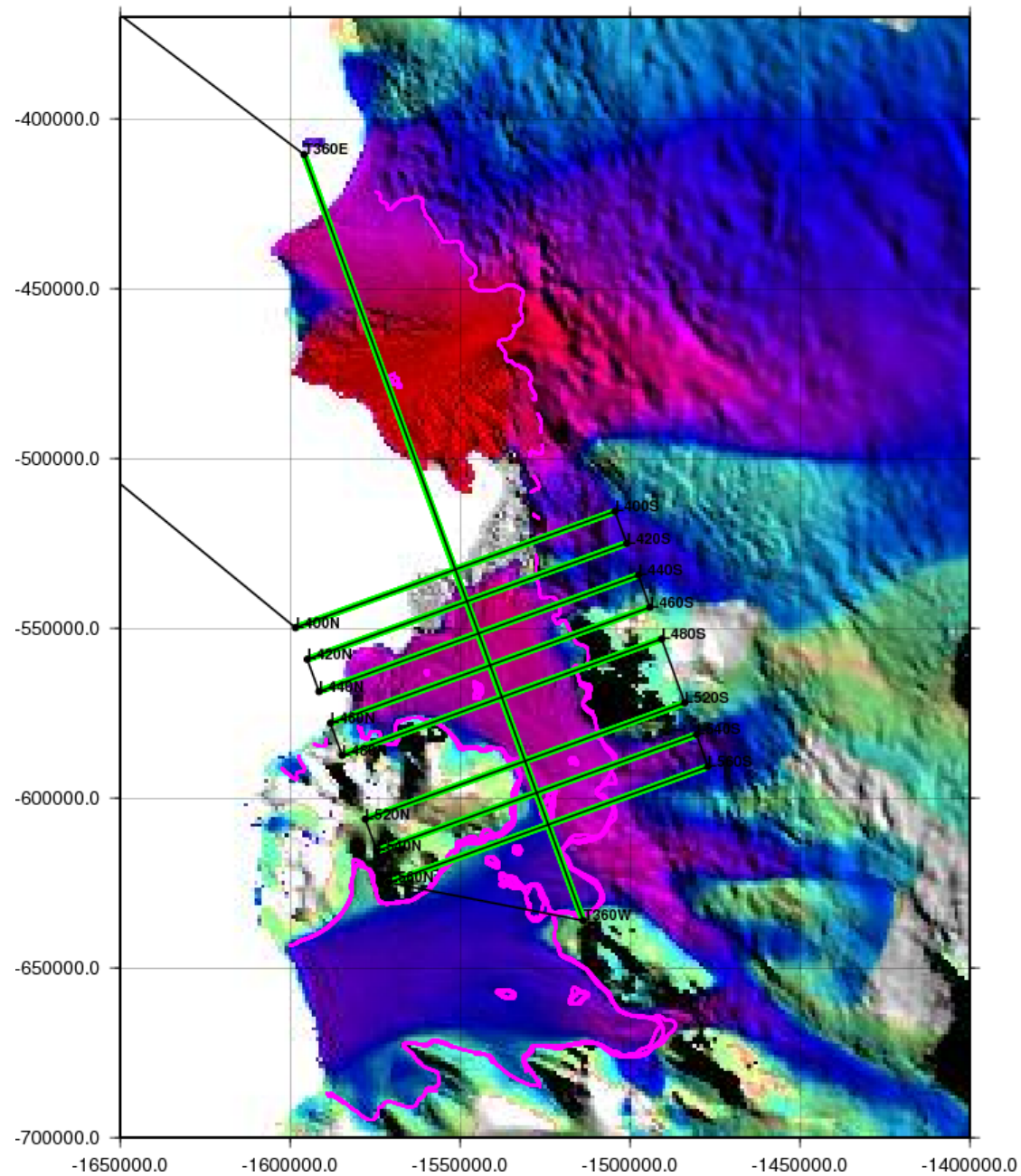
PEN 6

10.4 hours total / 5.9 hrs survey
440 knots transit / 250 knots survey

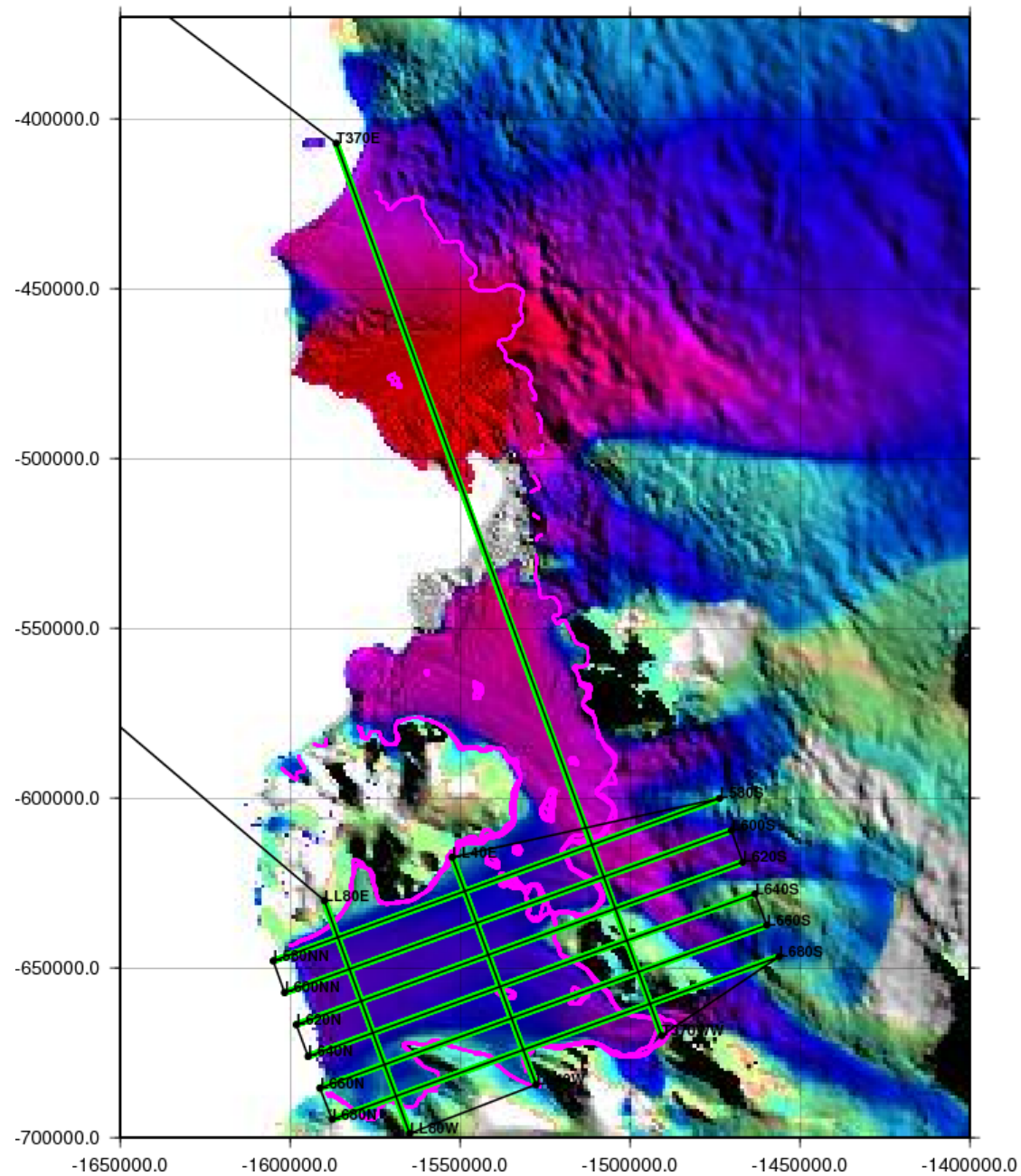


CROSSON 1

10.5 hrs total / 3.7 hrs survey
440 knots transit / 250 knots survey

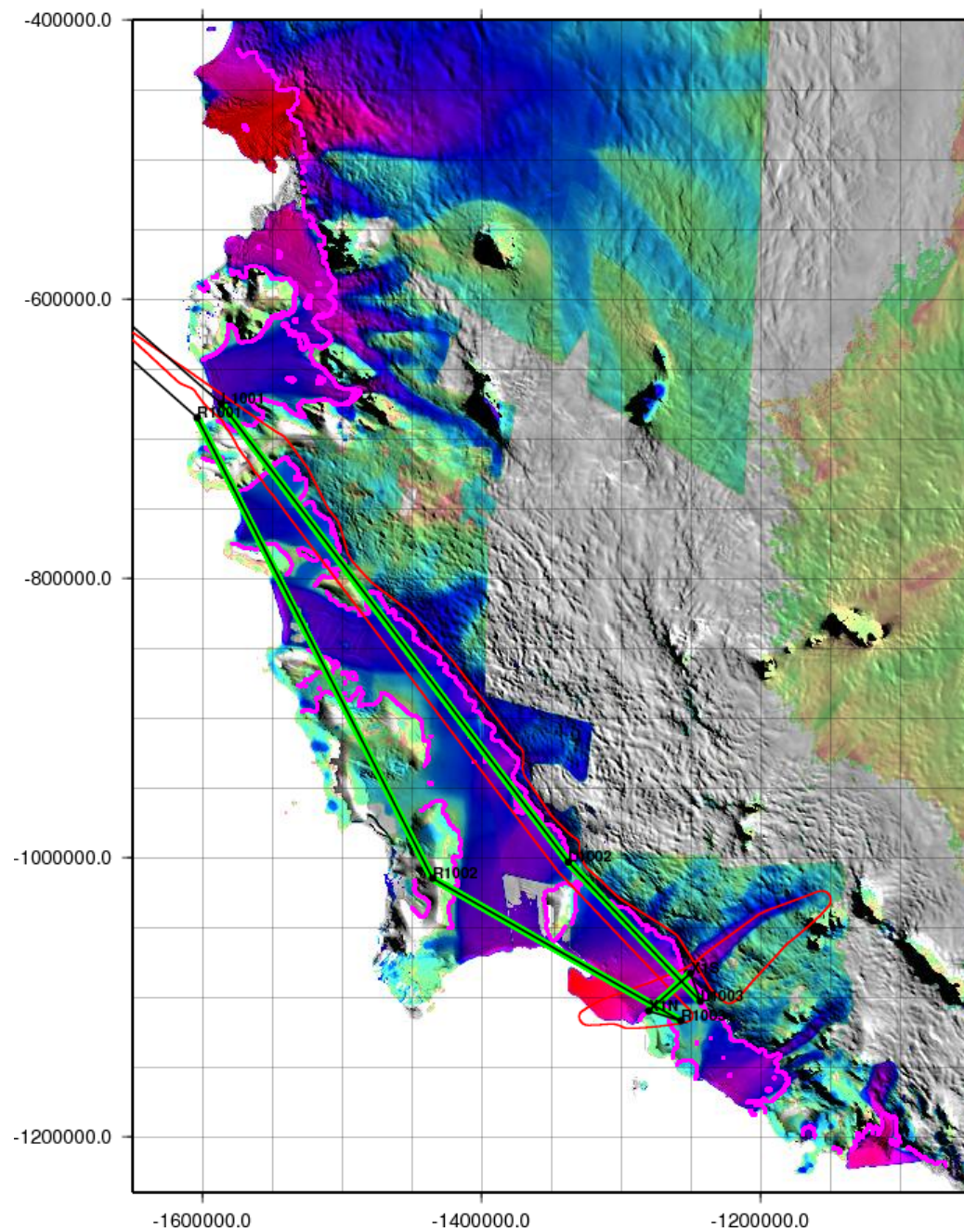


11.1 hrs total / 4.0 hrs survey
440 knots transit / 250 knots survey



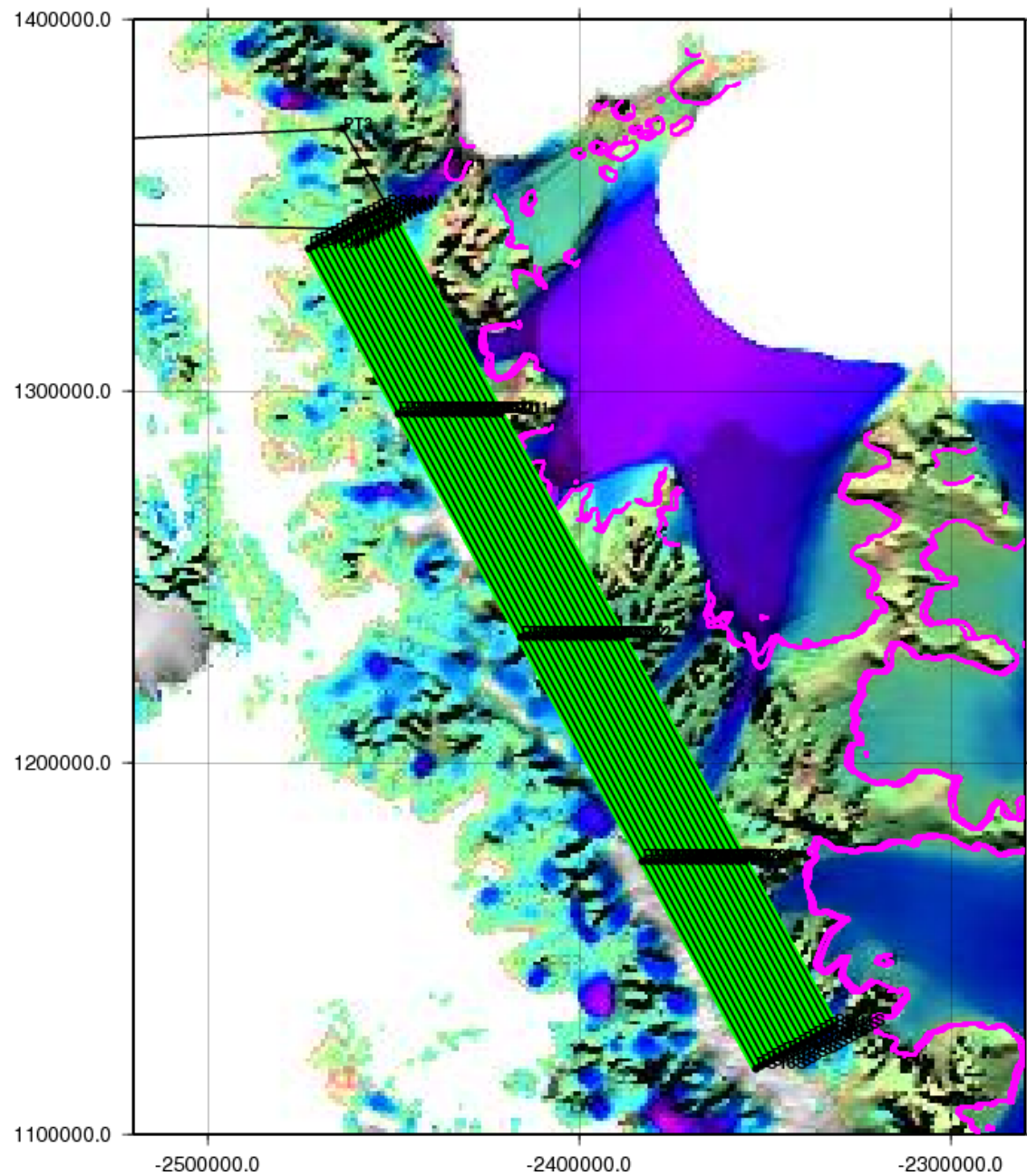
GETZ 2

10.2 hrs total / 2.8 hrs survey
440 knots transit / 250 knots survey



LVIS PEN

11.0 hours total / 8.1 hrs survey
440 knots transit / 440 knots survey



LVIS PIG

11.2 hrs total / 6.5 hrs survey
440 knots transit / 440 knots survey

